

ABSTRACT OF THE DISCLOSURE

A method for evaluating reticle registration between two reticle patterns. A wafer is defined and etched to form a first exposure pattern, by photolithography with a first reticle having a first reticle pattern thereon. A photoresist layer is formed over the wafer and defined as a second exposure pattern, by photolithography with a second reticle having a second reticle pattern thereon. A deviation value between the first and second exposure patterns is measured by a CD-SEM. The deviation value is calibrated according to the scaling degree and the overlay offset to obtain a registration data. The reticle registration between the two reticle patterns is evaluated based on the registration data.